

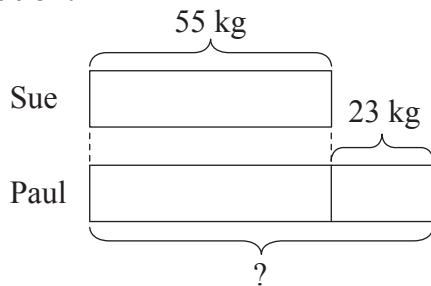
Mass – Addition and Subtraction

Part-Whole Model – Addition

Example

Sue's mass is 55 kg.
Paul is 23 kg heavier than Sue.
What is Paul's mass?

Solution:



$55 \text{ kg} + 23 \text{ kg} = 78 \text{ kg}$
Paul's mass is 78 kg.

Working

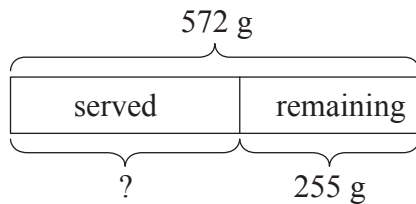
$$\begin{array}{r} 55 \\ + 23 \\ \hline 78 \end{array}$$

Part-Whole Model – Subtraction

Example

Muthu bought 572 g of nuts.
 He served some to his guests.
 He then kept the remaining 255 g of nuts in a container.
 How many grams of nuts did he serve to his guests?

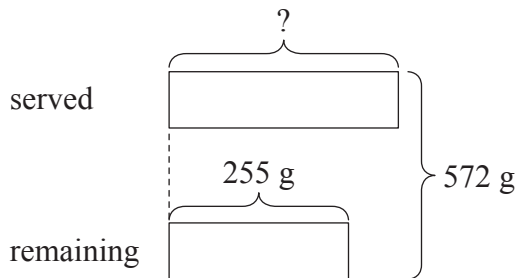
Solution 1:



$$572 \text{ g} - 255 \text{ g} = 317 \text{ g}$$

He served 317 g of nuts to his guests.

Solution 2:



$$572 \text{ g} - 255 \text{ g} = 317 \text{ g}$$

He served 317 g of nuts to his guests.

Working

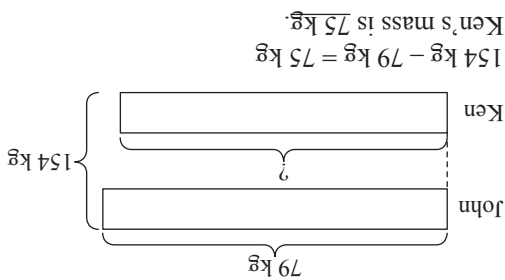
$$\begin{array}{r} 5 \overset{6}{\cancel{7}} 2 \\ - 255 \\ \hline 317 \end{array}$$

Solve the following word problems using models.

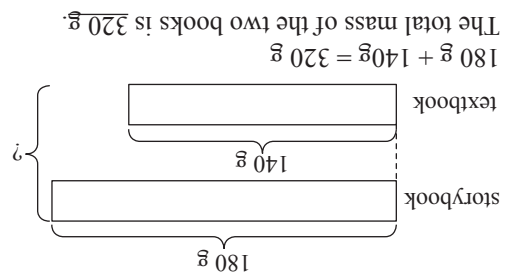
Working

- The mass of a storybook is 180 g.
The mass of a textbook is 140 g.
What is the total mass of the two books?

- The total mass of John and Ken is 154 kg.
If John's mass is 79 kg, what is Ken's mass?



2



Solutions:

1